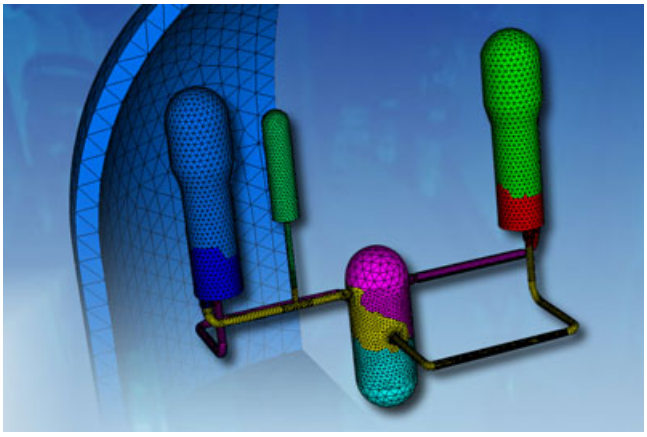


This was the second year INL hosted nuclear professionals from around the world learning about modeling and experimental validation of models to increase the safety, security and efficiency of nuclear reactors.

Second class of graduates finishes nuclear Modeling, Experimentation and Validation school

By Brianna McNall, *INL Nuclear Science & Technology intern*

After 10 days of heavy lectures, the 42 students at the Modeling, Experimentation and Validation school have "graduated."

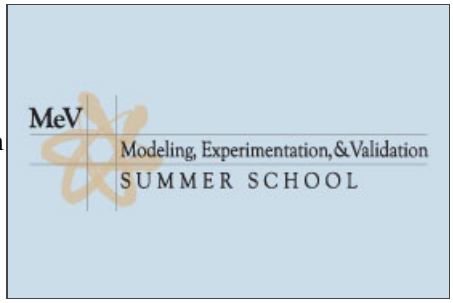
Nuclear engineering graduate students and young professionals from around the world spent more than a week at the Idaho Falls Center for Higher Education learning about modeling and simulation, experiments to validate those models, and how to use that information to increase the safety, security and efficiency of nuclear reactors.

This is the second year of the MeV School — Idaho National Laboratory has hosted both years, along with partners from Argonne National Laboratory and Oak Ridge National Laboratory. This year's theme was "Nuclear System Simulation and Safety Analysis." Experts on computational modeling, system simulation, fluid dynamics, safety analysis and uncertainty analysis gave lectures to a classroom full of students.

The long days of lectures are nothing new to the men and women at the MeV School though. One of the presenters, Hussein Khalil of Argonne National Laboratory, talked about the work load and problems facing nuclear engineering students today. He told them, "What doesn't kill you only makes you stronger."

Khalil went on to reflect about using the phrase in the past when "someone asked, 'What if it does kill us?'" Khalil went on, "I said, 'Natural selection.'"

In the evenings, the students worked with their groups to develop a project that was presented on the final day of the school. Each group worked on a different topic. Teammates Thomas Saller from the University of Michigan and Jeff Harris of Utah State University worked on a project about the "human factor" in MeV, a complex and unpredictable subject. They were almost finished, and fairly confident about everything except the length of their presentation several days before the school ended.



Dozens of graduate students and young professionals from around the world spent more than a week at the Idaho Falls workshop.

Harris is a second-year intern at INL, and was introduced to MeV school through his internship last summer.

"I gave a tour for the school last year and it seemed pretty interesting," Harris said. He was able to find a sponsor this year, and was sent off to the school.

The students went home with a lot of new information, thick binders full of new resources, and new connections in the nuclear engineering field, both among some of the experts in nuclear engineering and within their own peer group.

"I think it was very successful," said Kimberlyn Mousseau, secretariat of the MeV. "It went so smoothly this year, too. We were able to use lessons learned from last year to make the school even better this year."

Last year's MeV School was a pilot, the first time the partnership of sponsors had tried to run anything similar.

An undertaking like the MeV School requires a lot of work, and according to Mousseau, the people who helped organize and run the school were invaluable: Tandy Bales, Barbara Taylor, Tara Haack and one student intern, Austin Hammer.

"We also received tech support from an ISU student, Eric Bonebrake," said Mousseau. The contributions made by these people took the school to an unmatched level of professionalism.

"The students were very, very engaged," she said. Many of them stayed up into the wee hours of the morning getting their presentations finished

and polished for the final day of the school.

"We received a lot of positive feedback," Mousseau said. They instituted some new programs this year, bringing in professional videographers to record the lectures, which will be available online for past MeV students to view at a later date.

INL, the Center for Advanced Energy Studies and Idaho State University acknowledge that their turn to host the school is over now. Next year, the school moves to Illinois, where it will be hosted by Argonne National Laboratory.

"We're all sorry to see it go," said Mousseau. "However, we realize that we need to give our other sponsors the opportunity to participate in this important endeavor."

Feature Archive